APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,695	01/12/2001	Robert H. Halstead JR.	2682.2013-003	2643

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EXAMINER
TANG, KUO LIANG J

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/759,695	HALSTEAD ET AL.
		Examiner	**Art Unit**
		Kuo-Liang J Tang	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 April 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *2/2/04*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail.Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is in response to the amendment filed on 4/22/2004.

The priority date for this application is 11/01/1999.

Claims 1-22 are pending and have been examined.

Claims 1, 3-6, 9-10, 12-15 and 18-22 remain rejected under 35 U.S.C. 102(b) as being anticipated by McLennan, Michael J., Object-oriented Programming with [incr Tcl] Building Mega-Widgets with [incr Tk]" < hlp://www.ing.iac.es/-docs/exteoal/tcl/itcl/tutorials/itclitk-a4.pdf accessed January 12, 2004 (Art of Record (AU), hereinafter McLennan).

Claims 2 and 11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over McLennan in view of Li et al. (US Patent No. 5,943,496) hereafter Li.

Claims 7-8 and 16-17 remain rejected under 35 U.S.C. 103(a) as being unpatentable over McLennan in view of Hostetter et al., "Curl: A Gentle Slope Language for the Web," World Wide Web Journal, Spring, 1997 (hereinafter Hostetter).

Information Disclosure Statement

2.   The information disclosure statement filed 02/02/2004, document (AT2) is already in the PTO-892 form document (V) sent on 11/20/2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1, 3-6, 9-10, 12-15 and 18-22 are rejected under 35 U.S.C. 102(b) as being

anticipated by McLennan, Michael J., Object-oriented Programming with [incr Tcl] Building

Mega-Widgets with [incr Tk]" < hlp://www.ing.iac.es/-docs/exteoal/tcl/itcl/tutorials/itclitk-

a4.pdf accessed January 12, 2004 (Art of Record (AU), hereinafter McLennan).

As Per Claim 1, McLennan discloses a method of processing data comprising:

"defining an object (E.g. see page 86, Figure 2-11 Fileview mega-widget and associated text)

with an option data structure (E.g. see page 87, lines 24-30, "usual" option-handling code for

scrobars) which supports references to option values (E.g. see page 87, lines 25-26,

options -background, -troughcolor) without preallocation of memory space for the full option

values;" (E.g. see page 87, line 27, options -background, -troughcolor, -orient and –command ...

) and

"notifying objects of a change in an option value through a change handler identified by an

option binding, the option binding being located by first searching a mapping data structure for a

previously computed mapping to the option binding and, if no mapping was previously

computed, by then computing the mapping to the option binding and storing the mapping in the

mapping data structure." (E.g. see page 81, Figure 2-8 and associated text, e.g. page 81, lines 1-3).

Further, Applicant admitted in the specification background (page 1, lines 12-14) that "An alternative data structtlre which has, for example, been supported in the [incr Tk] language allows values to be stored in strings or arrays as options associated with an instance object". This also supports an option data structure having, in instances of the class, references to option values without preallocation of memory space for the full option values.

As Per Claim 3, the rejection of claims 1 is incorporated respectively and further McLennan discloses:

-the option binding is a most specific option binding given a class and a base option binding. (E.g. see page 79, Figure 2-6 itk_option and associated text).

As Per Claim 4, the rejection of claims 1 is incorporated and further McLennan discloses:

"change handler code for one option is defined in different classes within a class inheritance hierarchy and the change handler code from each class is executed when the option value changes." (E.g. see page 81, Figure 2-8 and associated text, e.g. page 81, lines 4-13).

As Per Claim 5, the rejection of claims 1 is incorporated and further McLennan discloses:

"an option data structure includes a default value (E.g. see page 83, lines 12-16), the method further comprising, in a get operation to an instance of the class, if an option value which

applies to the instance has been set, getting the set option value and, if a value which applies has

not been set, getting the default value for the class." (E.g. see page 79, lines 3-9).

As Per Claim 6, the rejection of claims 1 is incorporated and further McLennan discloses:

"the option data structure comprises a linked list of option items having option values."

(E.g. see page 79, Figure 2-6 itk_option and associated text).

As Per Claim 9, the rejection of claims 1 is incorporated respectively and further

McLennan discloses:

"the class which supports the option data structure includes defined fields to support

values in preallocated memory space." (Again, see as noted above of Claim 1).

Claim 10 is the system claim corresponding to the method claim 1 and is rejected under

the same reason set forth in connection of the rejection of claim 1.

As Per Claims 12-15 and 18, the rejection of claim 10 are incorporated and are rejected

under the same reason set forth in connection of the rejection of claims 3-6 and 9.

Claim 19 is the system claim corresponding to the method claim 1 and is rejected under

the same reason set forth in connection of the rejection of claim 1.

Claim 20 is the computer-readable medium claim corresponding to the method claim 1

and is rejected under the same reason set forth in connection of the rejection of claim 1.

As Per Claim 21, the rejection of claims 20 is incorporated and is rejected under the same

reason set forth in connection of the rejection of claim 6.

Claim 22 is the computer data signal claim corresponding to the method claim 1 and is

rejected under the same reason set forth in connection of the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McLennan in view of Li et al. (US Patent No. 5,943,496) hereafter Li.

As Per Claim 2, the rejection of claims 1 is incorporated and further McLennan did not

explicitly disclose the mapping data structure is a hash table. However, Li teaches the mapping

data structure is a hash table.(see Column 9, Lines 20-25, "The VMX first registers the

component object class name and the component object instance specification in a hash table

referred to herein as the object/name table (step 720). The object/name table is for enabling the

VMX to identify the component object instance associated with a particular instance name."). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Li into the system of McLennan, to have the mapping data structure be a hash table. The modification would have been obvious because one of ordinary skill in the art would have been motivated to use the object/name hash table for enabling the VMX to identify the component object instance associated with a particular instance name by using hash table.

As Per Claim 11, the rejection of claims 1 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 2.

5.   Claims 7-8 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLennan in view of Hostetter et al., "Curl: A Gentle Slope Language for the Web," World Wide Web Journal, Spring, 1997 (hereinafter Hostetter).

As Per Claim 7, the rejection of claims 1 is incorporated and further McLennan did not explicitly disclose a nonlocal option value applies to other objects in a nonlocal option hierarchy. However, Hostetter teaches a nonlocal option value applies to other objects in a nonlocal option hierarchy. ((see Section3, Page 4, Lines 1-2, "The screen shot above reflects the fact the user has selected something besides the default color (red) and quantity (0)."). Color is a nonlocal option because all text in a given document is usually the same color. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the

teaching of Hostetter into the system of McLennan, to comprise a nonlocal option value applies

to other objects in a nonlocal option hierarchy. The modification would have been obvious

because one of ordinary skill in the art would have been motivated to implement properties in a

dynamically bound environment using a deep binding mechanism.

As Per Claim 8, the rejection of claims 7 is incorporated and further McLennan did not

explicitly disclose the nonlocal option hierarchy is a graphical hierarchy. However, Hostetter

teaches the nonlocal option hierarchy is a graphical hierarchy. (see Section3, Page 4, Lines 1-2,

"The screen shot above reflects the fact the user has selected something besides the default color

(red) and quantity (0).") and (see Section4.3, Page 9, Lines 34-35, "text. Properties control the

color, size and font family as well as indicating whether the text should be bold or italic.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate the teaching of Hostetter into the system of McLennan, to comprise the

nonlocal option hierarchy is a graphical hierarchy. The modification would have been obvious

because one of ordinary skill in the art would have been motivated represent to a graphic image

as a hierarchical tree of Graphic objects (Leaves of the tree are primitive Graphic objects which

know how to draw themselves, usually after looking up the values of various properties).

As Per Claims 16-17, the rejection of claim 10 is incorporated and are rejected under the

same reason set forth in connection of the rejection of claims 7-8.

Conclusion

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 02/02/2004 document (AU) prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is 703-305-4866. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 703-305-4552.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306.

Kuo-Liang J. Tang

Software Engineer Patent Examiner

TUAN DAM
SUPERVISORY PATENT EXAMINER